

## Supplementary Figures

Fig 1. Comparison between DL-1 and CBS4732 of Hansenula polymorpha

HpOch2p_DL1	1	MVYFLNFWISITNV	PVLKRARLY	ATNRRLV	VVLVVLLY	WVQNVW	TWSPG	TRDLA	QYDAK	IEAEL	NSNLH
HpOch2p_CBS	1	MVYFLNFWISITNV	PVLKRARLY	ATNRRLV	VVLVVLLY	WVQNVW	TWSPG	TRDLA	QYDAK	IEAEL	SSNLH
HpOch2p_DL1	71	TFGAHLRH	LNRLPAES	ATLREKL	TFYFP	YYPEK	PVPNQ	IWQ	TWKV	DLEDD	NF
HpOch2p_CBS	71	TFGAHLRH	LNRLPAES	ATLREKL	TFYFP	YYPEK	PVPNQ	IWQ	TWKV	DLEDD	DF
HpOch2p_DL1	141	VYHLIP	DSVIED	FVASLY	ANVPE	VVRAY	QLL	PKNIM	KADEF	RYLV	YAR
HpOch2p_CBS	141	VYHLIP	DSVIED	FVASLY	ANVPE	VVRAY	QLL	PKNIM	KADEF	RYLV	YAR
HpOch2p_DL1	211	DRDLI	HAADNK	ADLSQ	IDPEART	TPVGL	VIGIE	ADPDR	PDWHE	WFSRR	LQFCQWT
HpOch2p_CBS	211	DRDLI	HAADNK	ADLSL	IDPEART	TPVGL	VIGIE	ADPDR	PDWHE	WFSRR	LQFCQWT
HpOch2p_DL1	281	RIVEET	FRKQHM	GV	LKRV	E	GKDS	GADIM	QWTG	PGIFT	DLFDY
HpOch2p_CBS	281	RIVEET	FRKQHM	GV	LKRV	E	GKDS	GADIM	QWTG	PGIFT	DLFDY
HpOch2p_DL1	351	KLKKTE	IKKNN	EPLH	SEDQ	LIN	WRSL	TNMDK	PKIM	GDVM	VLPI
HpOch2p_CBS	351	KLKKTE	ICKNN	EPLH	SEDQ	LIN	WRSL	TNMDK	PKIM	GDVM	VLPI
HpOch2p_DL1	421	GSWK	PKNK								
HpOch2p_CBS	421	GSWK	PKNK								



**Fig 3. Analysis of Sugar-chain structure of Hansenula polymorpha adding N-acetylglucosamine using Capillary electrophoresis (CE)**

